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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,094	01/18/2002	David Marples	1365	5824

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EXAMINER

DUONG, OANH L

ART UNIT PAPER NUMBER

2155

DATE MAILED: 04/23/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/052,094

Applicant(s)

MARPLES ET AL.

Examiner

Oanh L. Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 6-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakawa (US 2001/0020273 A1) in view of Calhoun (6,463,475 B1).

Regarding claim 1, Murakawa teaches a method performed by a hub (i.e., security gateway 203) for bypassing an access blocking apparatus (i.e., NAT) and thereby enabling a first device to allow communications from a second device wherein the first device (i.e., PC 106) is on local network (i.e., LAN 104) and the second device (i.e., PC 101) is external to the local network, the local network including the access blocking apparatus that connects the local network to external network and that separates the first and second device (i.e., NAT technology) (seen Fig. 1), said method comprising:

assigning an IP address to the first device and associating the IP address with the virtual pipe (i.e., virtual work on LAN 104 in the VPN communication, see page 4 paragraphs 93-98).

receiving communication originated by the second device and addressed to said IP address (page 4 paragraphs 95-97),

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routing the communications addressed to said IP address to the virtual pipe (page 2 paragraphs 29-36 and page 4 paragraphs 88-89),

and tunneling the communications over the virtual pipe to the first device thereby bypassing the access blocking apparatus (page 2 paragraph 45 and page 4 paragraphs 88-89 and 98).

Murakawa does not explicitly teach terminating/switching virtual pipe functionality.

Calhoun, in the same field of endeavor, teaches terminating a virtual pipe from the first device (col. 4 lines 46-59). Calhoun teaches such tunnel terminating/switching function would control of tunnel access to the destination network/device and thereby reducing congestion at destination (col. 2 lines 60-62). For this reason, it would have been obvious to one having ordinary skill in the art to have utilized the terminating/switching a virtual pipe function of Calhoun in the process of enabling communications between the first and second devices in Murakawa.

Regarding claim 2, Murakawa teaches receiving second communications originated by the first device through the virtual pipe, and routing the second communications from the first device to the second device (page 2 paragraphs 26-35).

Regarding claim 3, Murakawa teaches encrypting the communications prior to tunneling the communications over the virtual pipe (page 11 paragraph 14 and 17).

Regarding claim 4, Murakawa teaches receiving a plurality of communications originated by a plurality of second devices and addressed to the IP address, routing the plurality of communications addressed to the IP address to the virtual pipe, and

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tunneling the plurality of communications over the virtual pipe to the first device (page 2 paragraphs 28-35 and 45).

Regarding claim 6, Murakawa-Calhoun teaches terminating a second virtual pipe from the second device (Calhoun, col. 4 lines 46-59), assigning a second virtual pipe from the second device (Calhoun, col. 8 lines 38-51), and receiving communications from the second device through the second virtual pipe (Calhoun, col. 9 line 18-25).

Regarding claim 7, Murakawa-Calhoun teaches the IP addresses assigned to the first and second devices are private IP addresses (Murakawa, page 3 paragraph 68 and page 4 paragraph 95).

Regarding claim 8, the system of claim 8 has a corresponding method of claim 1; therefore, claim 8 is rejected under the same rationale as applied to claim 1.

Regarding claim 9, Murakawa-Calhoun teaches tunneling communication over the virtual pipe, and routing the communications (Calhoun, col. 2 lines 13-19).

Regarding claim 10, Murakawa-Calhoun teaches virtual pipe between the second device and said secure hub (page 1 paragraph 5)., and wherein said means for associating associates a second IP address from the pool of available IP addresses with the second virtual pipe (i.e., virtual work on LAN 104 in the VPN communication, see page 4 paragraphs 93-98), and whereby said means for tunneling tunnels said communications from the second device through the second virtual pipe page 2 paragraph 45 and page 4 paragraphs 88-89 and 98).

Regarding claim 12, a system of claim 12 has a corresponding method of claim 1; therefore, claim 12 is rejected under the same rationale as applied to claim 1.

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Regarding claims 13 and 14, Murakawa-Calhoun teaches establishing said communication from said second communication device through said public network to said secure hub (page 1 paragraph 5).

2. Claims 5, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakawa (US 2001/0020273 A1) in view of Calhoun (6,463,475 B1) in further view of Poier.

Regarding claims 5 and 11, Murakawa-Calhoun does not teach control list.

Poier, in the same field of endeavor, teaches establishing an access control list to control access to the first device, and based on the access control list, routing the communications from the second device to the first device only if the second device has permission to access the first device (e.g., see pages 4-5 paragraph 49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the control list of Poier in the process of enabling communications of Murakawa-Calhoun because it was conventionally employed in the art to allow/state which client computers may access data on the servers.

Regarding claim 15, Murakawa-Calhoun-Poier teaches access control list (Poier, pages 4-5 paragraph 49), routing (Murakawa, page 2 paragraphs 28-35), switching functionality routing (Calhoun, col. 2 lines 33-48).

3. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh L. Duong whose telephone number is (703) 305-0295. The examiner can normally be reached on Monday- Friday, 8:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.D

April 18, 2004



**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**